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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,840	12/13/2001	Ronald L. Stewart	SP00-361	7492

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CORNING INCORPORATED  
SP-TI-3-1  
CORNING, NY 14831

EXAMINER

BLACKWELL RUDASIL, GWENDOLYN A

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 05/06/2003

7

Please find below and/or attached an Office communication concerning this application or proceeding.

AS7

<b>Office Action Summary</b>	<b>Application No.</b> 10/016,840	<b>Applicant(s)</b> STEWART, RONALD L.	
	<b>Examiner</b> Gwendolyn A. Blackwell-Rudasill	<b>Art Unit</b> 1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4,6,7,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,7,9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 12 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

1. Claim 2 is objected to because of the following informalities:

Claim 2, line 2 has the thickness measurement as "nm" while all other thickness measurements in regards to the glass thickness is in "mm." Should "nm" be "mm"? Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

3. Claims 1-4,6-7,9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent no. 5,844,721, Karpen, in view of United Kingdom Published Patent Application no. 0441128, <sup>EP</sup>GB '128, further in view of Applicant's disclosure.

Karpen discloses a rearview window with a glass mirror that is doped with Nd<sub>2</sub>O<sub>3</sub>, which acts as a filter for yellow light. The glass mirror has silver backing with a transparent glass pane in front of the silvered reflective surface. The Nd<sub>2</sub>O<sub>3</sub> is contained in the glass in a sufficient amount to reduce the amount of vision discomfort from yellow light with the concentration of Nd<sub>2</sub>O<sub>3</sub> ranging from 5-30%. The glass absorbs 95-98% of the light in the wavelength ranging from 565-595 nm, (columns 10-11, lines 52-6). Karpen also discloses that the transmittance of light through the glass is related to the thickness of the glass by an absorption coefficient:

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$$\ln(T) = -AL$$

wherein L is the thickness of the glass, A is the absorption coefficient, T is the percentage of light transmitted, and Ln is the natural logarithm. Furthermore, the glass used as the glass pane can be made of a soda lime glass, (column 9, lines 11-23). An example of a glass used as a rearview mirror glass pane is glass made of a mixed alkali zinc silicate glass. Karpen does not specifically disclose the composition of the glass.

GB '128 disclose a glass with  $\text{Nd}_2\text{O}_3$  present in an amount greater than 5%. The glass can have the following components in wt%, (page 2):

$\text{SiO}_2$	40-60
$\text{Nd}_2\text{O}_3$	10-30
$\text{B}_2\text{O}_3$	5-15
$\text{Na}_2\text{O}$	3-18
$\text{ZnO}$	0.1-10
$\text{K}_2\text{O}$	0-3
$\text{Al}_2\text{O}_3$	0-7

The glass of GB '128 can be used for filters, (page 5, lines 33-37). The softening point temperature as claimed by applicant for the  $\text{Nd}_2\text{O}_3$  containing glass is present in the GB '128 glass as the glass composition of GB '128 substantially overlaps that as claimed by applicant, (page 9, line 50).

According to applicant's disclosure, it is known in the art that a thin sheet of glass, called a microsheet, can have a thickness of less than 0.5 mm. In addition, the microsheet can be used for different purposes, such as a laptop LCD. It is also known that mirrors are commonly made by placing a reflective film or coating over the surface of a glass sheet, (page 1, sections [0003-0004]).

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Karpen discloses a rearview mirror with a specific example that utilizes an alkali zinc silicate glass however a specific glass composition is not mentioned. The glass disclosed by GB '128, has the composition of an alkali zinc silicate glass that can be used as a filter. As such, it is within the skill of one in the art to modify the rearview mirror of Karpen with the glass made from the composition of GB '128 to obtain rearview mirror having a  $\text{Nd}_2\text{O}_3$  containing glass with more than 5 wt% of  $\text{Nd}_2\text{O}_3$  present in the glass to obtain a rearview mirror that blocks more yellow light making for a better night vision for the driver.

While Karpen discloses that the glass is 0.5 mm thick or more, (claim 1), it is known in the art that glass sheets can have a thickness less than 0.5mm used in diverse applications, such as a laptop LCD. It is within the skill of one in the art to modify the thickness of the glass through routine experimentation to obtain a thickness that provides the optimum amount of light transmittance at the desired wavelength. Especially in view of the fact that the Lambert-Beers Law provides for a correlation between the thickness of the glass and the percentage of light transmitted, (Karpen, column 9, lines 15-23).

#### ***Response to Arguments***

4. Applicant's arguments filed February 12, 2003 have been fully considered but they are not persuasive.
5. In response to Applicant's argument that the glass composition as disclosed by GB '128 is very different from the glass composition as exemplified by Applicant, the examiner recognizes that although the compositions are exactly the same the ranges of the prior art and the present invention have considerable overlap. In the case where the claimed ranges "overlap or

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lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed.Cir. 1990). A side by side comparison of Applicant's composition and GB '128 more clearly demonstrates the overlap of the glass composition.

	Applicant	GB '128
SiO <sub>2</sub>	55-70	40-60
Nd <sub>2</sub> O <sub>3</sub>	at least 5	10-30
B <sub>2</sub> O <sub>3</sub>	3-14	5-15
Na <sub>2</sub> O	5-11	3-18
ZnO	3-10	0.1-10
K <sub>2</sub> O	2-9	0-3
Al <sub>2</sub> O <sub>3</sub>	0.5-4.5	0-7
Na <sub>2</sub> O + K <sub>2</sub> O	7-20	3-21

Absent an evidentiary showing as to the criticality of the claimed ranges of the glass components in the composition in obtaining unexpected results, it is within the skill of one in the art to optimize the amount of each component to use in the glass by routine experimentation.

6. In response to Applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Karpen discloses a rearview window with a glass mirror that is doped with Nd<sub>2</sub>O<sub>3</sub>, which acts as a filter for yellow light. The glass mirror has silver backing with a transparent glass pane in front of the silvered reflective surface. The Nd<sub>2</sub>O<sub>3</sub> is contained in the glass in a

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sufficient amount to reduce the amount of vision discomfort from yellow light with the concentration of  $\text{Nd}_2\text{O}_3$  ranging from 5-30%.

GB '128 disclose a glass with  $\text{Nd}_2\text{O}_3$  present in an amount greater than 5%, in particular the range is 10-30%. The glass of GB '128 can be used for filters, (page 5, lines 33-37). A rearview mirror is a type of light filter. While Karpen does not specifically disclose that the glass composition has to be the glass composition as disclosed in GB '128, GB '128 has met the limitations that Karpen has disclosed as being required for the rearview mirror. In particular, that the glass have a concentration of  $\text{Nd}_2\text{O}_3$  ranging from 5-30% in a glass of mixed alkali zinc silicate, (column 9, lines 59-61). Because GB '128 meets the limitations of Karpen, it would be within the skill of one in the art to use the glass made using the composition of GB '128 as the glass in the review mirror of Karpen.

7. In response to Applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the method of making the glass) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant has claimed a reflecting mirror with a certain glass composition. The combination of Karpen and GB '128 satisfies those limitations. As such, Applicant's contention that the teachings of Karpen and GB '128 would not produce the glass as exemplified by Applicant does not provide patentable distinction over the prior art.

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***Conclusion***

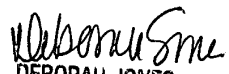
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gwendolyn A. Blackwell-Rudasill whose telephone number is (703) 305-9741. The examiner can normally be reached on Monday - Thursday; 6:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Gwendolyn A. Blackwell-Rudasill  
Examiner  
Art Unit 1775

gbr  
May 5, 2003

  
DEBORAH JONES  
SUPERVISORY PATENT EXAMINER